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Subject: Comments on Proposed Emission Standards for Asbestos, 40 CFR Part 61, as Published in the Federal Register December 7, 1971

Gentlemen:

Background

For approximately nine years, Union Carbide Corporation has conducted a modest mining operation on a large, short fiber, chrysotile asbestos deposit in the remote New Idria mining district of California. The asbestos is subsequently processed in a mill located near King City, California. Some of the resulting asbestos products are sold to domestic floor tile producers and for other typical applications for short fiber asbestos. However, Union Carbide Corporation's participation in these markets is relatively small, and we could not sustain this operation if it were solely based on the production and sale of traditional asbestos products in competition with the large Canadian producers. Consequently, Union Carbide Corporation has placed emphasis on the development and sale of highly refined asbestos products for special applications to the extent that the economic viability of our asbestos business is dependent on these products. Our most significant special asbestos product is a chemically modified high purity asbestos fiber which acts as a thixotrope for such strong binder resins as polyester, epoxy and polyvinyl chloride. Typically, the asbestos addition to these resins varies from 0.5% to 1.0% although in some few applications it may exceed 5%. The market for this product consists of literally hundreds of customers, each using a relatively small quantity of asbestos. For instance, in 1971, 70% of the

companies to whom we supplied asbestos for this purpose used less than 0.7 tons per year and none used over 35 tons per year. (For comparison, one average size floor tile plant will consume approximately 15,000 tons of asbestos per year). Although these low asbestos content resins are often applied to a mold by spraying techniques, very little free fiber is released because of the low content and the adhesion of the resin. The only significant alternative thixotropic agent available is pyrogenic silica - also designated by OSHA as a "Target Hazard". The silica product has a much lower bulk density than our asbestos product and so is inherently much dustier. It is also a less efficient thixotrope and is more expensive. However, the silica dust hazard and attendant regulations have received much less publicity and, therefore, are less alarming to our customers.

General Comments

Our asbestos mine is located in a remote area some 45 miles from any population center. The ore has a natural moisture content of from 15% to 20%. The remote location of the mine plus the high moisture content of the ore and the inherent particle density (2.45 grams/cc.) makes it very unlikely that dust originating at the mine site could affect any populated area. The moist ore is transported in canvas covered truck beds to a stock pile at the King City mill. A sprinkling system on the mill's stock pile adds moisture to the ore. The milling process at King City is a wet system (the ore is introduced and processed in a slurry) which inherently minimizes dust generation.

While we believe that the above described operating methods will enable us to comply with the regulations as published, it remains possible that an occasional visible emission of particulate matter from the ore stock pile could occur under extreme wind conditions.

We have more concern with the impact of the proposed regulations on our special asbestos product customers. These customers and, for that matter, their customers in turn, would fall within the present definition of an "asbestos source".

We believe that the reporting requirements, if applied to small operations, and the restrictions on spraying would have an immediate adverse reaction on our business which could force us to terminate our asbestos operations. We further believe that the multitude of our direct customers and their customers would make administration of the proposed regulations impractical. Moreover, we are of the opinion that these adverse factors would not be offset by any meaningful, if any, reduction in asbestos emissions to the atmosphere.

On the other hand, more reasonable wording of the regulations can achieve the aim of reducing or eliminating major sources without undue stress upon small operations and the consequent dilution of administrative effort.

Specific Comments

There are three areas of specific concern:

1. In Paragraph 61.02 (k), stationary source is defined to include any operation "which emits or may emit any hazardous air pollutant." Literally this definition would include any building with asbestos floor tile or insulation (even already installed) or any plant with even one bag of fiber on hand. At least, as the reporting rules are applied, some reasonable lower limit in terms of quantity processed per year and/or concentration in the material handled would allow practicable control enforcement.

   To provide a practical lower level for administrative control, a subparagraph could be added to Paragraph 61.21 ( ) 'source' as applied to asbestos in Paragraph 61.09 shall not include manufacturing plants processing less than 3.0 tons of asbestos per month, or fabricating plants using materials containing less than 3.0 tons of asbestos per month, or materials containing less than 25% asbestos in which the fiber is held by a plastic or adhesive binder.

2. Paragraph 61.22(e) is properly intended to prohibit heavy emissions of asbestos from spraying of high asbestos content slurries and cements with loose fiber bonding, for fireproofing and acoustical control in the course of construction. However, as written, the rules would also prohibit the spraying of plastics using 1-5% of asbestos as viscosity control and thixotrope in gel coating of molds and laminating resins for such items as auto body parts, boats, etc. — even if no fiber is liberated to the air. This prohibition would seriously inhibit a desirable application since many companies will simply use less efficient (but also potentially hazardous) alternate materials to avoid the paper work and implied liability attached to asbestos. The accompanying avoidance of emissions will be miniscule since the quantities of material used are small, the content is low, and the asbestos fibers are bound in the plastic base.

   Paragraph 61.22(e) could read "(e) The spraying of asbestos fiber alone or slurried with lime cement and/or water, when the asbestos content is over 1%, is limited as follows:" Then in each of subparagraphs (1)-(3), the words "such materials" should be substituted for "any product which contains asbestos".

3. Paragraph 61.22 (b) (1) calls for an absolute prohibition of dusting - "visible emissions of particulate matter" - from ore dumps and tailings dumps. While water sprays are employed and essentially accomplish this goal, no one can be completely certain that high winds will not cause such emission. While chemicals could possibly be used on tailings dumps to provide further stabilization, such contaminants cannot be tolerated in the ore to be processed.

   Paragraph 61.22 (b)(1) could read, "Visible emissions of particulate matter from asbestos ore dumps and asbestos-containing tailings dumps shall be minimized by water spraying."

We will be happy to discuss these comments with your staff at your convenience.

Very truly yours,

James W. Rawlings

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